

Notice of Allowability

Application No.

10/702,618

Examiner

LaTanya Bibbins

Applicant(s)

GUSHIMA ET AL.

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 11 June 2007.
2. ☒ The allowed claim(s) is/are 1-23.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

WAYNE YOUNG
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-23 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Regarding claims 1-10, none of the references of record, alone or in combination, suggest or fairly teach a playback method, a playback control circuit, or a playback apparatus for a recording medium to which data is recorded in block units containing multiple fixed-length frames and block address information is pre-recorded, the playback method comprising: acquiring the data from a first playback signal from the recording medium; acquiring the block address information from a second playback signal based on pre-recorded block address information from the recording medium; **predicting the recording position of each frame in a block from the acquired block address information; synchronizing to a frame level based on the acquired data; determining the memory address for storing the data acquired based on the predicted recording position; and storing the acquired data at the determined memory address** in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper.

Regarding claims 11-23, none of the references of record, alone or in combination, suggest or fairly teach a playback method, a playback control circuit, or a playback apparatus for reproducing data from a recording medium to which is recorded modulated frame data and a specific synchronization code prepended to the beginning of the modulated frame data, the modulated frame data being error correction coded

data segmented into multiple frame data blocks of a specific length and then modulated, the playback method comprising: acquiring signals from the recording medium; acquiring a detection result of synchronization code by detecting frame synchronization codes from the acquired signals; correcting frame synchronization based on the result for detection of acquired synchronization code; **generating a result information for detection of synchronization code coded according to specific rules from the detection result of synchronization code; demodulating the modulated frame data for each frame and generating demodulated frame data; adding the result information for detection of synchronization code for each frame to the corresponding demodulated frame data; and rectifying an error according to the detected synchronization code** in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Citation of Relevant Prior Art

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gushima et al. (US Patent No. 7,158,464 B2), discloses a recording medium comprising a recording area, the recording area includes a first area and a second area,

the first area includes a frame area, the frame area includes an area in which a second synchronization code sequence and at least a portion of data are to be recorded, and the second area includes an area in which a third synchronization code sequence and a fourth synchronization code sequence are to be recorded.

Saito et al. (US Patent No. 5,589,995), discloses an apparatus for recording and reproducing a burst-like digital information signal, a method capable of predicting the time of occurrence of a header indicating the beginning of the first data of a digital information signal during its reproduction from a recording medium. The digital signal includes a plurality of data blocks, each including a first header indicative of the head of the block, and each first header including the address of the block. During recording of a digital signal on the recording medium, a plurality of second headers, which are substantially the same as the first headers of the data blocks and including addresses having given relations with the addresses of the data blocks, are inserted in a clock regenerating signal recorded before the digital signal for regenerating the clock for the signal. The second headers are inserted at a period equal to the period of each data block so as to be synchronized with the headers of the data blocks.

Tanaka et al. (US Patent No. 5,881,037), discloses a digital video disk which stores data codes and multifunctional synchronization codes in a data structure. The synchronization codes contain type information code identifying whether the synchronization code is located in a code sequence at the beginning of the data block, the beginning of a data block sector other than the first sector in the data block, the beginning of a line, or the middle of a line. The type information is expressed by two

Art Unit: 2627

alternative patterns, type information code 1 and type information code 2, expressing the same information and differing in the number of 1s in the 5-bit sequence, i.e., an odd or even number of 1s. Which one of the two type information code pattern is used is selected according to the DSV so as to minimize bias in the dc component of the frame following the synchronization code.

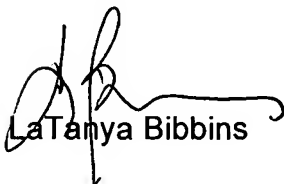
Hayashi et al. (US PGPub No. 2001/0006499 A1), discloses a data recorder for recording data that records data in a continuous manner regardless of interruptions. An encoder encodes data that is to be written to a recording medium. A synchronizing circuit synchronizes the data read from the recording medium with the encoded data when the writing of data to the recording medium is interrupted. A first retry determination circuit determines whether an address of the data read from the recording medium and an address of the data provided to the encoder match. A second retry determination circuit determines whether the timing for reading data from recording medium and the timing for encoding data match. A restart circuit restarts the writing of data to the recording medium based on the determinations of the first and second retry determination circuits.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaTanya Bibbins whose telephone number is (571) 270-1125. The examiner can normally be reached on Monday through Friday 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LaTanya Bibbins



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SUPERVISORY PATENT EXAMINER